Mission Statement

Dr. Linda R. Coney

11/17/2006

I understand and fully believe in the mission of Hope College. I attended Hope as an undergraduate and have since carried the lessons I learned, the experience I gained, and the solid foundation of my Christian faith with me. I believe that earning a liberal arts education is an excellent way to prepare well rounded students for the world, no matter what their desired specialty. In addition to this valuable liberal arts education, Hope provides students with a superior scientific program in physics. I also value the strong presence of the Christian faith at Hope. I believe that it is important to actively integrate faith into life, and developing this process at college provides an excellent foundation for students.

When I was in high school searching for a university that fit my needs, I was drawn to Hope for many reasons. Foremost among these was the fact that I knew that I would receive a well rounded, quality liberal arts education from Hope. I knew I wanted to specialize in science, but I also wanted to become knowledgeable about other disciplines. I have always valued my time at Hope. I believe that the best scientists are those who understand how to function in the world. The ability to communicate effectively, both in written form and through discussion with peers or a general audience, is essential as a scientist. My education at Hope through the core classes exposed me to many fields and those who study them. As a result, I can better understand those in the arts as well as my peers in other scientific fields. A liberal arts education prevents science students from becoming stereotypically one dimensional and better prepares them to contribute to society. The overseas programs offered at Hope take this multi-faceted education to a global level and enable students to become comfortable with very different cultures abroad. My own participation in the Vienna summer school prepared me well for the multi-national nature of particle physics research. It is also very important to introduce people in other fields to science. Those in other disciplines need to develop critical thinking skills, problem solving techniques, and the ability to understand how the physical world works on a basic level.

In addition to a quality liberal arts education, Hope also offers an exceptional program in physics. As an undergraduate at Hope, I received an excellent education in the classroom. Through the interests of the faculty, I was exposed early to classes in special and general relativity. I also took a class in particle physics – this was my first experience with the field I ultimately chose for my doctoral research. The individual attention, small class sizes, and direct contact with faculty instructors, rather than graduate students, results in an education that enables students to reach their full potential and prepares them well for graduate school and beyond. I will continue this kind of quality level of teaching and add my interests to that of the rest of the faculty.

At Hope, I also participated in scientific research at a level that went above and beyond that of many of my peers at larger state institutions. My experience in physics

research at Hope inspired me to continue on to a graduate program at the University of Notre Dame. At Notre Dame, I discovered that my hands-on experimental physics background put me well ahead of my peers. I was able to jump directly into a research program in particle physics. This early involvement in research at Hope is an essential part of the education and development of students as physicists. I want to offer the same kind of rewarding hands-on research opportunity to today's students. With my background and contacts in particle physics and at the Fermi National Accelerator Lab, I can involve Hope students in very exciting cutting edge research in neutrino physics and accelerator physics. These opportunities are traditionally reserved for graduate students, but can easily be brought to the undergraduates at Hope. With the kind of program offered at Hope, we can catch the interest of and foster the development of these young physicists.

Beyond the definite positives of a quality education and high level research programs, a strong base in the Christian faith makes Hope a very special place. The solid foundation of the Christian faith at Hope enables students to strengthen their belief and develop a faith-based philosophy of life to carry them on after college. I grew up in the Christian faith, as a member of the Reformed Church of America. I believe my faith is an important part of my life. I attend church regularly, join in both social and intellectual fellowship, and volunteer my time and skills as often as possible. I volunteered at my local hospital, have worked to build homes with Habitat for Humanity, and have tutored disadvantaged inner city children through programs at Fourth Presbyterian Church in Chicago. I have also introduced hundreds of Girl Scouts to women in physics through an annual Fermilab Badge Girl Scout Workshop. While I am not boisterous about my beliefs, I have often found myself speaking as a voice of faith within the community of science, both within my church community and amongst my scientific peers. I believe it is important to understand how to be a scientist and a Christian and how to live as an example as such.

I look forward to joining the Hope College community. I have greatly enjoyed my experience in experimental physics both at the University of Notre Dame and Columbia University. I bring with me the knowledge gained from my academic studies and from years of research at the forefront of particle physics and accelerator physics. I have discovered new production mechanisms for bosons at the Fermilab Tevatron, have contributed to a new measurement on neutrino oscillations, and have improved the performance of a proton accelerator in high demand. I have taught physics students at Hope and at the University of Notre Dame, and have mentored and advised undergraduates from Duke University and the University of Chicago. I have enjoyed working with these students and with the Columbia University graduate students who were based at Fermilab. I look forward to teaching physics at Hope and would love to involve students in particle physics research. I hope to engage them in learning and promote their development into capable physicists, and I hope to pass on my love of physics and passion for experimental science. I will support the overall mission of Hope College and endeavor to contribute to the liberal arts environment and to be a good role model and mentor to the students there.